

### CLAIMS

1. An X-ray diagnosis apparatus comprising:

an X-ray generator for generating X-ray according to an X-ray generating condition of an image acquisition mode selected from a plurality of image acquisition modes;

an X-ray detector for receiving incidence of the X-ray generated by the X-ray generator, the X-ray detector converts the incident X-ray to an image signal and processes the image signal according to a signal processing condition of the selected image acquisition mode to thereby outputs image data in the selected image acquisition mode;

storage means for storing each of offset data in the plurality of image acquisition modes;

first mode offset data calculation means for, when a first mode of the plurality of image acquisition modes is selected, calculating new offset data in the first mode based on offset image data outputted from the X-ray detector in a state that the X-ray is not incident on the X-ray detector and first mode offset data stored in the storage means;

second mode offset data calculation means for calculating new offset data in a second mode based on second mode offset data of the plurality of image acquisition modes stored in the storage means and the new offset data in the first mode;

image calculation means for, when the second mode is selected, calculating a second mode X-ray image from the image data outputted from the X-ray detector in a state that the X-ray is incident on the X-ray detector and the new offset data in the second mode; and

display means for displaying the X-ray image.

2. The X-ray diagnosis apparatus according to claim 1, wherein the offset data stored in the storage means is acquired in advance in the state that the X-ray is not incident on the X-ray detector.

3. The X-ray diagnosis apparatus according to claim 1, wherein the second mode offset data calculation means calculates the new offset data in the second mode by

converting the second mode offset data stored in the storage means based on at least one of an update amount and an update rate of the new offset data in the first mode.

4. The X-ray diagnosis apparatus according to claim 1, wherein the first mode offset data calculation means calculates the offset data in the first mode by obtaining arithmetic means of a plurality of the offset image data in the first mode for each pixel of the offset image data.

5. The X-ray diagnosis apparatus according to claim 1, wherein the first mode offset data calculation means takes the arithmetic mean of a plurality of the offset image data in the first mode for each readout channel of the X-ray detector so as to calculate the offset data in the first mode.

6. The X-ray diagnosis apparatus according to claim 1, wherein the image calculation means calculates the X-ray image by subtracting the offset data from the image data.

7. The X-ray diagnosis apparatus according to claim 1, further comprising input means for inputting an instruction to update the offset data, and when the instruction is inputted, the first mode offset data calculation means sets the state that the X-ray is not incident on the X-ray detector so as to newly calculate the offset data.

8. The X-ray diagnosis apparatus according to claim 1, wherein the first and the second modes are different two of an entire region fluoroscopy mode, a partial region fluoroscopy mode and an radiography mode.

9. The X-ray diagnosis apparatus according to claim 1, wherein the X-ray detector is an X-ray flat panel detector.